REMARKS

This Amendment is responsive to the Office Action mailed on November 16, 2005. Claims 1, 12, 26, 33, 38, and 51 are amended. Claims 1-57 are pending.

The Examiner has objected to the specification, indicating that "speed controller 108" and "contact pins 28" are not found in the drawings. Applicants respectfully submit that "speed controller 108" is shown in Figure 3 as part of the central computer 100 and "contact pins 28" are shown in Figure 1 as part of the AC motor 10, as described on page 18 of the specification. The specification is amended to clarify which drawing figures show these reference numerals. Withdrawal of the objections to the specification is respectfully requested.

Claims 1-57 are rejected under 35 U.S.C. § 102(e) as being anticipated by Takagi (US 6,642,739).

Applicants respectfully traverse these rejections in view of the amended claims and the following comments.

Discussion of Amended Claims

Claims 1, 12, 26, 33, 38, and 51 are amended to avoid potential antecedent basis problems. In addition, claims 1, 12, 33, and 38 are amended to clarify the way in which the runout is measured. In particular, claims 1, 12, 33, and 38 each now specify that the runout of the rotor of the electric motor is detected by detecting a variation of a spacing between the runout sensor and the rotor in the course of at least one revolution of the rotor.

Discussion of Takagi

Claims 1-57 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Takagi. This rejection is respectfully traversed. An anticipation rejection requires that each and every element of the claimed invention as set forth in the claim be provided in the cited reference. See *Akamai Technologies Inc. v. Cable & Wireless Internet Services Inc.*, 68 USPQ2d 1186 (CA FC 2003), and cases cited therein. As discussed in detail below, Takagi does not meet the requirements for

an anticipation rejection.

Takagi discloses a method and device for magnetizing and inspecting a rotor for magneto generators. The apparatus 26 includes a table 27 from which depends a support rod 28. Mounted at a lower end of the support rod 28 is a mounting plate 29 which carries a pneumatic cylinder 31 (Col. 3, lines 10-17). Positioned above the table 27 and a coil mounting assembly 44 and mounted coils 48 and 49 is a position sensor 53. Position sensor 53 is comprised of a pair of sensors 53a and 53b, which sense the circumferential extent and location of a timing mark 24. In addition, a height sensor 53c senses the height of the timing mark 24. In this way, it is possible to determine the circumferential extent, location and height of the timing mark 24 to ensure that the magnetization is in the correct circumferential alignment with the angular position of the rotor 21 when attached to the associated engine (Col. 3, lines 43-55).

Applicants respectfully submit that the Examiner has misunderstood the term "runout" as used in Applicants' claims. Claims 1, 12, 33, and 38 are amended herein to clarify the claimed measurement of the runout of the rotor of the electric motor. According to the present invention as set forth in claims 1, 12, 33, and 38, detecting runout is accomplished by detecting variations of the spacing between the runout sensor and the surface of the rotor in a plurality rotational positions within one revolution, as for example shown in Applicants' Figure 6.

Takagi is incapable of measuring such a runout as claimed by Applicants. In Takagi, sensors 53 are provided to detect a timing mark 24 and the angular extension of timing mark 24 in circumferential direction (Col. 3, lines 50-55). The sensors in Takagi act to ensure that the magnetization is in the correct circumferential alignment with the angular position of the rotor 21 when attached to the associated engine (Col. 3, lines 53-55).

Takagi does not disclose any detection of the radial position of timing mark 24, as the radial position if timing mark 24 is not an issue in locating a timing mark with respect to poles of the magnets.

In contrast to Takagi, with Applicants' invention as set forth in amended claims 1, 12, 33, and 38, runout of a rotor is detected by detecting the variation in spacing between the outer surface of the rotor and the runout sensor in a number of rotational positions within one

revolution. A measurement of the runout cannot be obtained by detecting a specific circumferential location as is done in Takagi.

Takagi does not disclose or remotely suggest a method or device for measuring the runout of a rotor of an electric motor, as claimed by Applicants in claims 1, 12, 33, and 38. In particular, Takagi does not disclose or remotely suggest a first runout measuring device, having at least a first runout sensor, where the first runout measuring device detects a runout of a rotor of the electric motor in a first direction by detecting a variation of a spacing between the first runout sensor and the rotor in the first direction in the course of at least one revolution of the rotor, and a second runout measuring device, having at least a second runout sensor, the second runout measuring device detecting a runout of the rotor of the electric motor in a second direction by detecting a variation of a spacing between the second runout sensor and the rotor in the second direction in the course of at least one revolution of the rotor, in which the second direction extends transversely in relation to the first direction, and where the runout in the second direction is measured at the same time as the runout in the first direction, as set forth in Applicants' claims 1 and 33.

In addition, Takagi does not disclose or remotely disclose a first runout measuring device, having at least a first runout sensor, where the first runout measuring device detects a runout of the rotor of the electric motor in a first direction by detecting a variation of a spacing between the first runout sensor and the rotor in the first direction in the course of at least one revolution of the rotor, where the runout measuring device determines a value for the runout associated with individual rotational positions within one revolution of the rotor by detecting the runout for every individual revolution from a multiplicity of revolutions of the rotor in the same individual rotational positions of the rotor, as set forth in Applicants' claims 12 and 38.

Applicants' claims 26 and 51 disclose a measuring device for electric motors, where a voltage induced in the non-energized windings of the electric motor is measured with a rotor of the electric motor running freely. Takagi does not disclose or remotely suggest any type of measuring device which measures a voltage induced in the non-energized winding of the electric motor with the rotor running freely. The magnetization inspection section 58 of Takagi inspects

the magnetization of a magnetized rotor, but does not measure the voltage induced in the non-energized windings of an electric motor with the rotor running freely.

Takagi is far removed from Applicants' claimed invention. The device if Takagi is directed towards testing the size, location and height of a timing mark (Col. 2, lines 14-17). Takagi discloses that timing marks are commonly placed on a magnet assembly to assist in setting the timing for firing of spark plugs of an associated engine. It is important that these timing marks be accurately located relative to the magnets of the assembly (Col. 1, lines 33-40). Accordingly, the device if Takagi is directed towards testing the size, location and height of a timing mark (Col. 2, lines 14-17).

In contrast, the claims of Applicants' are directed towards measuring the runout of the rotor of an electric motor (claims 1, 12, 33, and 38) or measuring the voltage induced in the non-energized windings of an electric motor with the rotor running freely.

As Takagi does not disclose each and every element of the invention as claimed, the rejections under 35 U.S.C. § 102(e) are believed to be improper, and withdrawal of the rejections is respectfully requested. See, *Akamai Technologies Inc., supra.*

Applicants respectfully submit that the present invention is not anticipated by and would not have been obvious to one skilled in the art in view of Takagi, taken alone or in combination with any of the other prior art of record.

Further remarks regarding the asserted relationship between Applicants' claims and the prior art are not deemed necessary, in view of the amended claims and the foregoing discussion. Applicants' silence as to any of the Examiner's comments is not indicative of an acquiescence to the stated grounds of rejection.

Withdrawal of the rejections under 35 U.S.C. § 102(e) is therefore respectfully requested.

Conclusion

The Examiner is respectfully requested to reconsider this application, allow each of the pending claims and to pass this application on to an early issue. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,

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